THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PHILLIP L. SMILEY

Appeal No. 96-1898
Application No. 07/921,826[1]

ON BRIEF

Before HAIRSTON, KRASS, and BARRETT, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 and 3 through 24, all of the claims remaining in the application.

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[1] Application for patent filed July 29, 1992.

The invention is directed to modelling data in an information repository, best described by reference to representative independent claim 1, reproduced as follows:

1. A method for modelling data in an information repository, comprising the steps of:

identifying and defining a plurality of data objects including data;

formulating relationships between said data objects;

defining physical storage information for each of said data objects;

storing said data objects, relationships and physical storage information as a network including a plurality of nodes associated with said data objects and said relationships as connectivities therebetween and;

maintaining a method entity for said information repository including information to implement said relationships in a database.

The examiner relies on the following references:

Ferrer et al. (Ferrer) 4,479,196 Oct. 23, 1984

M.R. Blaha et al., ”Relational Database Design Using an Object-Oriented Methodology” Communications of the ACM, pp. 414-428, April 1988.

L.M. Burns et al., “A Graphical Entity-Relationship Database Browser” IEEE Computer, pp. 694-704, 1988.

J.V. Joseph et al., “Object-Oriented Databases: Design and Implementation” Proceedings of the IEEE, Vol.79, No.1, pp. 42-64, 1991.

Claims 1 and 3 through 23 stand rejected under 35 U.S.C. 103. As evidence of obviousness, the examiner cites Ferrer and Joseph with regard to claims 1, 3 through 10 and 12 through 22, adding Blaha with regard to claim 11. The examiner cites Ferrer and Burns with regard to claim 23. Claims 12 through 22 stand further rejected under 35 U.S.C. 112, first and second paragraphs.

Reference is made to the briefs and answers for the respective positions of appellant and the examiner.

OPINION

At the outset, we make some observations about the handling of the prosecution of this case by both appellant and the examiner, as well as presumptions we have made in determining the issues and reaching our decision herein.

The exact claims on appeal and the number thereof is confusing since there appears to have been 23 claims, with claim 2 being canceled; yet the new principal brief, filed August 22, 1996 (Paper No. 18) has an appendix showing 24 claims with claim 2 being canceled. Further, statements in the briefs and answers, directed toward the rejections and

arguments for and against, only indicate that there are, indeed, 23 claims with claim 2 being canceled. Although appellant presented the claims in the appendix of the latest principal brief as being correct, and the examiner apparently acquiesced in that this was a correct copy of the claims on appeal [note the last line of page 3 of the principal answer of May 31, 1995, which was confirmed by the examiner in the communication of November 13, 1996 (Paper No. 20) wherein the examiner chose to rely on the original answers and that "[n]o further comment" was deemed necessary by the examiner], the claims presented for appeal in the appendix to the latest principal brief is *not* correct.

Apparently, an error in this new set of claims presented by appellant was made in including a claim "5" which was redundant of what was already recited in claim 4 (with the addition of depending from claim 2, a canceled claim) and then, every claim thereafter was labeled with a number which was one integer greater than its intended number. Accordingly, in analyzing the claims, and making our decision, we presume that claim 5 in the appendix to the latest

principal brief should be deleted and that claims 6 through 24 should be relabeled as claims 5 through 23, respectively.

With regard to the statements of rejection, the examiner's presentation of the grounds of rejection is confusing. With regard to the rejections based on prior art, under 35 U.S.C. 103, the principal answer indicates that Ferrer and Blaha are employed against claim 11, that Ferrer and Burns is applied against claim 23, that Ferrer and Joseph is applied against claims 12 through 22 and, in a new ground of rejection, entered in the principal answer, Ferrer and Joseph is also applied against claims 1 through 10 (this should be claims 1 and 3 through 10 since claim 2 has been canceled). This would have been well and good but then, in the supplemental answer, the examiner states other grounds of rejection based on prior art with Ferrer and Joseph applied against claims 1 and 3 through 10 and Ferrer, Joseph and Blaha applied against claim 11. Further, it is not clear from the supplemental answer whether these are new grounds of rejection or mere restatements of grounds previously recited. They would appear to be restatements but whereas only Ferrer and Blaha were employed against claim 11 previously, the examiner now

adds Joseph to this combination in rejecting claim 11. This would appear reasonable and proper since claim 11 depends from claim 1 the rejection of which relies, at least in part, on Joseph.

Thus, we will presume, in reaching our decision, that the rejections before us are:

1. Rejection of claims 12 through 22 under the first and second paragraphs of 35 U.S.C. 112.

2. Rejection of claims 1, 3 through 10 and 12 through 22 under 35 U.S.C. 103 over Ferrer and Joseph.

3. Rejection of claim 11 under 35 U.S.C. 103 over Ferrer, Joseph and Blaha.

4. Rejection of claim 23 under 35 U.S.C. 103 over Ferrer and Burns.

With these presumptions in mind, we proceed with our decision.

We turn first to the rejection of claims 12 through 22 under 35 U.S.C. 112, first and second paragraphs.

With regard to the first paragraph of 35 U.S.C. 112, this rejection is based on the enablement clause, the examiner contending that the claim limitation of “rule information”

renders the claim not only unclear because it suggests that information is capable of "action," but that there is no teaching in the specification as to how to accomplish an action by the rule information. The second paragraph rejection is based on similar reasoning, the examiner contending that it is unclear what is meant by "to act on classes of objects" because nothing which may be construed as an action is specified. [principal answer - page 5].

We will sustain the rejection under both the first and second paragraphs of 35 U.S.C. 112.

In our view, the examiner has raised a reasonable challenge to the sufficiency of disclosure. The recitation of "rule information to act on classes of said objects" appears to indicate that there is some active participation on the part of the "rule information" which causes classes of objects to do something yet we find no disclosure instructing artisans on what must be done or how to do it. In response to the rejection, appellant points us to page 14, lines 30 et seq. of the specification. That part of the specification reads as follows:

> ENTITIES 21, such as customer 60, account management 61, returned material 62, sales order history 63, ship 64, product database 65, world wide price list 66, and inventory 67, are joined by relationship connections 68-73 which represent operational or business rules, to form an operational system network.

From this disclosure, appellant contends that "rule information...implemented as relationships 'acts' on classes of objects to join the objects together to form an operational system network" [principal brief - page 5] and concludes that the skilled artisan "would be able to use relationships to join object classes together without undue experimentation."

We agree with the examiner that appellant's response does not relate to the claim language. We fail to see how the recited portion of the specification relates to "rule information to act on classes of said objects," as claimed. Appellant speaks of "relationships." However, "relationships" are already recited on line 3 of claim 12 as "relationships interconnecting said plurality of objects..." Therefore, it would appear that the later recited "rule information" would be something separate and distinct from "relationships." Therefore, appellant's argument that the artisan would be able to use "relationships" to join object classes would appear to

be non-responsive and/or immaterial to whether the artisan would have known how to make and use the claimed "rule information to act on classes of said objects."

In the reply brief, appellant further explains that the "operational or business rules" recited in the specification is the claimed "rule information." If so, this still does not explain how such rules "act on classes of...objects," as claimed, nor does it explain how the skilled artisan is to implement these rules in such a manner as to practice the claimed invention.

The examiner has established a reasonable basis for challenging the sufficiency of the instant disclosure with regard to the subject matter of claims 12 through 22 and, in our view, appellant has not sufficiently answered that challenge. Accordingly, we will sustain the rejection of claims 12 through 22 under 35 U.S.C. 112, first paragraph.

We will also sustain the rejection of claims 12 through 22 under 35 U.S.C. 112, second paragraph, for similar reasons. That is, we simply do not understand what is meant by "rule information to act on classes of said objects." If "rule information" is represented by relationship connections, as

contended by appellant at page 2 of the reply brief, then it is not understood how this differs from "relationships connecting...," recited previously in the claim. Further, it is unclear what type of action is intended by the rule information "to act" on classes of objects.

We turn now to the prior art rejections.

First, with regard to the rejection of claims 12 through 22 under 35 U.S.C. 103, we will summarily reverse this rejection since a claim which is indefinite and not completely understood cannot, logically, have prior art applied against it. By making this technical reversal of the prior art based rejection of claims 12 through 22, it should not be implied that the art relied on by the examiner would not be relevant relative to claims of the present scope containing definite limitations. In re Steele, 305 F.2d 859, 862-863, 134 USPQ 292, 295 (CCPA 1962).

With regard to claims 1 and 3 through 10, the examiner contends that Ferrer discloses the identification and defining a plurality of data objects, formulating relationships between the data objects and storing the data objects, relationships and physical storage information as a network. The examiner

contends that Ferrer might not explicitly teach the steps of defining and storing physical storage information for each of the data objects but that it was well known in the computer arts that such definition and storage of physical storage information was always required in order to subsequently retrieve the stored information.

The examiner also admits that Ferrer did not teach the claimed step of "maintaining a method entity..." but the examiner relies on Joseph's teaching of an entity-relationship in Figure 4 therein for providing for this deficiency in Ferrer, contending that the combination would have been obvious because of the benefit to Ferrer gained from providing this benefit of the "well-known feature of polymorphism" [principal answer - pages 8-9].

For his part, appellant contends that Ferrer does not teach the claimed step of storing data objects, relationships and physical storage information "as a network" [reply brief - page 5, emphasis in the original]. We disagree. The information at the nodes, along with the relationships between the nodes, represented by arrows, in Ferrer clearly comprise a "network," as broadly claimed. When this information is

stored for later retrieval and then retrieved, the nodes and relationships must still be the same as before storage, containing the same information that made it a "network" in the first place and, as such, Ferrer does, indeed, broadly disclose the storage of data objects, relationships and physical storage information as a network.

Appellant further contends [reply brief - bottom of page 5] that Ferrer and Joseph are not properly combinable since Ferrer relates to "hypergraphs and hyperedges which are distinctly different from object oriented databases and object-oriented programming languages as disclosed by Joseph. We disagree with this argument also because, as broadly set forth, the claimed subject matter calls for a method "for modelling data in an information repository" and does not appear to be limited to any specific type of system. As such, both Ferrer and Joseph would be in the general area of data base management and we find no reason the artisan would not have been expected to know of each type of system.

Finally, appellant challenges the examiner's assertion that the claimed maintaining step is known as "polymorphism" [reply brief - page 5] and requests the examiner to provide

evidence of the truth of the assertion. The examiner has not complied with the request.

The term "polymorphism" is defined by appellant in the specification [top of page 20] as

> the practice of defining the same named method in different classes and having that method execute possibly distinct tasks from one class to the next.

It is not clear to us whether the claim limitation of "maintaining a method entity..." is meant to be a statement relating to such a "polymorphism."

In any event, claim 1 clearly calls for "maintaining a method entity..." and the examiner has not identified, to our satisfaction, anything in the prior art which would have suggested this limitation. The examiner simply points to the "Entity-relationship" in Figure 4 of Joseph and asserts, apparently, that this is the suggestion for modifying Ferrer to include a step of "maintaining a method entity..." While appellant's arguments are not impressive, since they basically contend that the claimed steps are not taught by the applied references without any further detail as to why this is the case, we still will not sustain the rejection of claims 1 and

3 through 10 under 35 U.S.C. 103 over Ferrer and Joseph because, in our view, the examiner has not established a prima facie case of obviousness with regard to the claimed subject matter. The responsibility lies with the examiner, in the first instance, to establish obviousness and we are not convinced, from the examiner's reasoning, that Joseph does, indeed, suggest the claimed step of "maintaining a method entity..." For us to assume that it does would amount to speculation and speculation has no place in a conclusion of obviousness within the meaning of 35 U.S.C. 103.

Accordingly, we will not sustain the rejection of claims 1 and 3 through 10 under 35 U.S.C. 103.

We also will not sustain the rejection of claim 11 under 35 U.S.C. 103 because claim 11 depends from independent claim 1 and while the examiner relies on an additional reference to Blaha for the limitations added by claim 11, Blaha does not provide for the deficiencies of Ferrer and Joseph with regard to the claimed step of "maintaining a method entity..."

Turning now to the rejection of claim 23 under 35 U.S.C. 103, this rejection relies on Ferrer and Burns.

The issue here is whether Burns teaches a navigator connected to the database for enabling browsing among objects and relationships independent of the database. The examiner contends that such browsing is taught by Burns, although the examiner never explains where, in Burns, there is a teaching of the "independent" limitation. Appellant argues that Burns merely suggests a database dependent browser but never elucidates as to why Burns is considered to be a database dependent browser as opposed to a browser independent of the database.

We make no representation, one way or another, as to the teaching of Burns since we will not sustain the rejection of claim 23 under 35 U.S.C. 103 for technical reasons. That is, for reasons, infra, we make a new ground of rejection of claim 23 under 35 U.S.C. 112, second paragraph (as well as under the first paragraph) and, as such, we will not speculate as to the meaning of claim limitations in order to apply prior art. In re Steele, supra.

NEW GROUNDS OF REJECTION IN ACCORDANCE WITH 37 CFR 1.196(b)

Claim 23 is rejected under 35 U.S.C. 112, first and second paragraphs, as being based on an inadequate written description and being indefinite, respectively.

First, with regard to the written description, we find no support in the disclosure, as originally filed, for the now claimed limitation of the navigator enabling browsing among objects and relationships “independent” of the database. This limitation was added by the amendment of October 27, 1994 (Paper No.3) but we find no indication that there is any support in the original specification, including the original claims, or in the drawings for such a limitation.

With regard to the rejection of claim 23 under the second paragraph, it is unclear exactly what is intended by browsing “independent” of the database. We find no explanation in the specification as to what is meant by “independent.” It is unclear, for example, how the browsing of the instant claimed invention being “independent” of the database, differs from the browsing function taught by the Burns reference, of record.

CONCLUSION

We have sustained the rejection of claims 12 through 22 under 35 U.S.C. 112, first and second paragraphs but we have reversed the rejection of claims 1 and 3 through 23 under 35 U.S.C. 103. In addition, we have entered new grounds of rejection, in accordance with 37 CFR 1.196(b), rejecting claim 23 under 35 U.S.C. 112, first and second paragraphs.

Accordingly, the examiner's decision is affirmed-in-part.

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR 1.197(b) provides:

> (b) Appellant may file a single request for rehearing within two months from the date of the original decision . . . .

37 CFR 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of

rejection to avoid termination of proceedings (37 CFR 1.197(c)) as to the rejected claims:

> (1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .
>
> (2) Request that the application be reheard under 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellant elect to prosecute further before the Primary Examiner pursuant to 37 CFR 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a).

AFFIRMED-IN-PART

37 CFR 1.196(b)

KENNETH W. HAIRSTON Administrative Patent Judge	)
ERROL A. KRASS Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
LEE E. BARRETT Administrative Patent Judge	)

EAK/jlb

Appeal No. 96-1898
Application No. 07/921,826

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